Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
CHECKPOINT SYSTEMS, INC.	)	RM No. 9092
	)	
Petition for Rulemaking to Amend Part 15	)	
	)	

To: The Commission

CONSOLIDATED REPLY

I. INTRODUCTION

Checkpoint Systems, Inc. ("Checkpoint"), by its attorneys and pursuant to Section 1.405 of the rules of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. § 1.405, respectfully submits this Consolidated Reply in support of the above-captioned Petition for Rulemaking ("Petition") and in response to the Statement in Opposition ("Opposition") by Sensormatic Electronics Corporation ("Sensormatic"), filed on June 13, 1997, and the Comments of the American Radio Relay League (the "League"), filed on June 16, 1997.

In its Petition, Checkpoint requests the Commission to initiate a rulemaking proceeding to amend its rules to permit Checkpoint to operate its radiofrequency ("RF") electronic article surveillance ("EAS") system in the 1.705 - 30 MHz band at a maximum radiated emission level of 1 millivolt/meter measured at 30 meters and at a maximum conducted emission level of 3 millivolts. Sensormatic objects to Checkpoint's Petition on the following grounds: (1) the proposed emission limits likely would result in harmful interference to both licensed and unlicensed radio services; (2) the proposed emission limits are inconsistent with current international emission standards and contravene the FCC's harmonization policy; and (3) the proposed emission limits are unnecessary since the FCC's current limits permit the operation of

RF-based EAS systems that fully satisfy the unique needs and demands of customers, such as warehouses and distribution centers, for anti-theft systems that offer maximum effectiveness and flexibility. See Opposition of Sensormatic, at 2-3 (filed June 13, 1997). The League voices similar concerns, particularly those regarding the potential for harmful interference to licensed radio services, such as amateur radio services, caused by EAS devices operating at the proposed emission limits. See Comments of the League, at 5-6 (filed June 16, 1997). The League argues that the Commission should not proceed further with Checkpoint's Petition in the absence of some indication of the potential for harmful interference to licensed radio services. Id. at 8.

Both Sensormatic and the League, however, have failed to offer any concrete factual support for dismissing or denying Checkpoint's Petition without first having conducted a rulemaking proceeding to consider Checkpoint's proposal. Presumably, if such support existed, Sensormatic and the League would have submitted it in response to the Petition. Their failure to do so reveals their true motivation: Sensormatic is a disgruntled competitor with declining market share who seeks to impede a more successful competitor's efforts at technological innovation, while the League is simply reacting, as expected, as it would to any proposal involving the spectrum used by its members. Contrary to Sensormatic's and the League's unsubstantiated allegations, however, the current emission limits do not adequately serve the public need for effective, low-cost EAS devices, and the available evidence indicates that the proposed increase in emission limits will not significantly increase the risk of harmful interference to licensed or unlicensed radio services. Because Checkpoint's proposed increase in emission limits is long overdue and strikes an appropriate balance between the public need for low-cost, effective EAS devices and the need to minimize the occurrence of harmful interference to licensed radio services, the Commission accordingly should grant Checkpoint's Petition, promptly commence a

rulemaking proceeding, and take all necessary steps toward adopting the proposed emission limits.

II. THERE IS NO EVIDENCE TO SUGGEST THAT THE PROPOSED EMISSION LIMITS WILL CAUSE HARMFUL INTERFERENCE TO LICENSED OR UNLICENSED RADIO SERVICES

Sensormatic and the League have failed to provide any evidence demonstrating that operation of EAS devices at the proposed emission limits will cause harmful interference to licensed or unlicensed radio services or otherwise disserve the public interest. Although Sensormatic in particular expresses concern for potential interference to unlicensed and licensed radio systems such as disaster and emergency backup radiocommunications, amateur radio, broadcasting, fixed and mobile radio, radioastronomy, and radiolocation, Sensormatic has failed to offer any substantiation for this concern. It is noteworthy that no radio licensee or group of licensees, other than the League, has submitted any objection to Checkpoint's proposal. Indeed, prior to filing its Petition with the FCC, Checkpoint submitted letters to the National Telecommunications and Information Administration ("NTIA"), specifically soliciting comments regarding Checkpoint's proposed emission limits. To date, Checkpoint has not received any objections from NTIA regarding its proposal.

Although Sensormatic contends that Checkpoint's proposed EAS operation will impair the operation of Sensormatic's own existing EAS systems, it neglects to mention that RF-based EAS systems operating below 30 MHz comprise an insignificant portion of the total Sensormatic EAS product line. As evidenced in Sensormatic's own annual report, filed with the Securities Exchange Commission on Form 10-K as of September 27, 1996, Sensormatic's product line consists mostly of EAS systems that either depend on non-RF-based, magnetics technology or

operate on microwave frequencies that are much higher than 30 MHz. Thus, the operation of such EAS systems would not be affected in any way by Checkpoint's proposed EAS operation.

Moreover, to the extent that Checkpoint's proposed EAS operation would cause interference to the few RF-based EAS systems offered by Sensormatic, such operation also would cause interference to Checkpoint's own EAS systems as well. Checkpoint, however, has no reason to believe that such interference is likely to occur and certainly would not propose any technical standard that would jeopardize the operation of Checkpoint's own EAS systems.

In any event, contrary to Sensormatic's suggestion that its Part 15 devices are entitled to interference protection from other Part 15 devices, Section 15.5(a) of the FCC's rules, 47 C.F.R. § 15.5(a), expressly provides that persons operating under Part 15 "shall not be deemed to have any vested or recognizable right to continued use of any given frequency." Section 15.5(b), 47 C.F.R. § 15.5(b), also provides that operation under Part 15 "is subject to the condition[] . . . that interference must be accepted" from other radio equipment. Indeed, the Commission affirmed the well-established principle that no Part 15 device is entitled to special interference protection when it denied Sensormatic's petition requesting the Commission to reconsider its Part 15 Order and to indefinitely prohibit the operation of new Part 15 devices within the 902 - 905 MHz band in order to protect Sensormatic's unlicensed anti-theft systems from interference. See Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License - Sensormatic Petition for Reconsideration, 5 FCC Rcd 3492 (1990). Although the Commission agreed to delay the implementation of its new rules permitting the operation of other Part 15 devices within the 902 - 905 MHz band, the Commission nonetheless emphasized that its decision to delay implementation of its rules "does not mean . . . that the Commission will protect the Sensormatic equipment from interference or give it priority over other radio frequency devices." Id. at 3493 n.9. The Commission also suggested that any interference caused to Sensormatic's

anti-theft equipment could be minimized or eliminated by the development of new anti-theft systems that are less susceptible to interference from other Part 15 devices. Id. at 3493.

The League's concerns regarding potential interference to amateur radio systems are not any more convincing than those raised by Sensormatic. Indeed, the Commission previously has dismissed similar objections raised by the League concerning potential interference to amateur radio systems resulting from the operation of low-power RF devices under Part 15 of the FCC's rules. Specifically, when the FCC initially considered adopting in 1989 its current general radiated emission limit of 30 microvolts/meter at 30 meters and conducted emission limit of 250 microvolts for RF devices operating in the 1.705 - 30 MHz band, the League objected to such limits on the ground that such limits would lead to harmful interference to amateur radio systems. See Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License, 4 FCC Rcd 3493, 3497 (1989) ("Part 15 Order").

In support of its objection, the League proffered the results of its engineering analysis, which indicated that Part 15 devices operating at the FCC's proposed general emission limits could cause harmful interference to amateur radio systems at distances ranging from 78 m (at 14 MHz) to 102 meters (at 28 MHz). Id. The FCC, however, dismissed the League's objection, expressly noting that the "interference distances calculated by the League and others for frequencies below 30 MHz are overly optimistic and that the actual potential for interference from Part 15 devices is significantly less." Id. The FCC further observed that "the majority of Part 15 devices operating on frequencies between 1.705 and 30 MHz are field disturbance sensors for control of entry into buildings or tag sensors for deterring shoplifting that have an effective range of a few feet and normally are used in buildings that attenuate the range of the emissions." Id. (emphasis added). Consequently, the FCC concluded that "the risk of interference to shortwave

broadcasts and ARS [Amateur Radio Service] transmissions by Part 15 devices operating below 30 MHz at the new emissions levels appears to be very low." Id.

Furthermore, in denying the League's petition for reconsideration of the general emission limits adopted in the Part 15 Order, the Commission reasoned that the risk of interference to licensed radio services is low because "[t]he large numbers of licensed users effectively preclude the general operation of Part 15 devices at the lower general limit in the 1.705 - 30 MHz band." See Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License - American Radio Relay League Petition for Reconsideration, 5 FCC Rcd 7314, 7316 (1990). Thus, the Commission determined that "[o]nly those devices used in relatively shielded areas can be used at the Part 15 general emission limits." Id.

Since the filing of its objections to the current Part 15 emission limits, the League has not offered any more credible evidence demonstrating that the operation of Part 15 devices at any particular radiated or conducted emission level will cause harmful interference to amateur radio systems. Indeed, the League has offered no evidence whatsoever to show that operation of EAS devices at Checkpoint's proposed emission limits will cause harmful interference to amateur radio systems or any other licensed radio systems. In the absence of such evidence, it seems hardly appropriate for the Commission now to accord more credence to the League's claim of interference, particularly when the Commission previously dismissed similar claims despite greater, albeit questionable, evidence of potential interference than that offered by the League in this proceeding.

In addition, neither the League nor Sensormatic has offered any reasoned basis for disputing the well-established fact that EAS devices have a limited range of radiated emissions as a result of their location within enclosed areas or inside buildings and that any interference caused by EAS devices would be localized and thus easily identified and corrected. Indeed, as

Checkpoint noted in its Petition, the Commission repeatedly has affirmed that EAS devices pose a low risk of interference to licensed radio services in part because of the nature of the areas in which they typically operate. See Petition of Checkpoint, at 12-14 (citing Part 15 Order, 4 FCC Rcd at 3498; The Amendment of Part 15 to Provide for the Operation of Wide-Band Swept RF Equipment Used as Anti-pilferage Devices, 65 FCC2d 802, 804 (1977) ("Anti-pilferage Devices")). The Commission also has affirmed that, in the unlikely event of interference caused by EAS devices, such interference would be localized and easily remediable.[1] Id. at 13 (citing Anti-pilferage Devices, 65 FCC2d at 804).

Moreover, neither Sensormatic nor the League has offered any evidence to suggest that Checkpoint's proposed EAS operation is any more likely to cause harmful interference than other similar Part 15 devices that currently operate at comparable or higher emission levels. In particular, intentional radiators currently operate within the 13.553 - 13.567 MHz and 26.96 - 27.28 MHz bands at radiated emission limits of 10 millivolts/meter at 30 meters and 10 millivolts/meter at 3 meters, respectively, without any significant problems of interference to

[1] The League contends that even if interference to licensed radio systems could be traced to Checkpoint's proposed EAS operation, such interference could not be easily corrected because "the Commission cannot be relied upon to take any enforcement action with respect to it, and neither the user of the device nor Checkpoint has any incentive to whatsoever to resolve the interference complaint." Comments of the League, at 6. Such an argument, however, is devoid of any merit. Since Section 15.5 of the FCC's rules, 47 C.F.R. § 15.5, specifically requires all Part 15 devices to operate on a non-interference basis with licensed radio services, Checkpoint and all other operators of Part 15 devices have every incentive to resolve any complaints of interference to licensed radio services. Indeed, successful implementation of the Part 15 rules depends largely on the cooperation of operators of Part 15 devices and on the ability of the Commission to enforce its rules. The League has offered no evidence to suggest that the Commission is unable to take appropriate enforcement action to prohibit actual incidences of interference to licensed radio services. In any event, any alleged failure or inability of the Commission to prohibit known incidences of interference to licensed radio services is a problem that implicates the continued usefulness of the entire regulatory framework established under Part 15 of the FCC's rules. Such a fundamental problem cannot be remedied by simply imposing undue technical restrictions on the operation of EAS devices.

licensed radio services. See 47 C.F.R. §§ 15.255, 15.227. Similarly, no significant problems of interference to licensed radio services have resulted from the operation of Class A digital devices below 30 MHz at a conducted emission limit of 3 millivolts or from the operation of carrier current systems below 30 MHz at unlimited conducted emission levels. See 47 C.F.R. § 15.107(b), (c). Indeed, as noted in its Petition, since the grant of its experimental authorization on November 22, 1996, Checkpoint has been operating EAS equipment at a maximum radiated emission level of 1 millivolt/meter at 30 meters and at a maximum conducted emission level of 3 millivolts, without any known complaints of interference. See Petition of Checkpoint, at 16. There is no evidence to suggest that the continued operation such equipment is any more likely to cause interference to licensed radio services.

Furthermore, contrary to the League's and Sensormatic's wholly unsubstantiated allegations, nothing in the record of the Part 15 Order proceeding suggests that the Commission considered and dismissed any proposal for higher emission limits governing the operation of EAS devices in the 1.705 - 30 MHz band. Id. at 3496-505. Although several parties proposed higher emission limits for Part 15 devices operating below 1.705 MHz and other parties, including the League, objected to the general emission limits proposed and subsequently adopted by the Commission in 1989, neither the Commission nor any other party of record in the Part 15 Order proceeding proposed higher emission limits for EAS devices in the 1.705 - 30 MHz band. Id. at 3497. The undeniable fact is that the Commission has not examined the need to increase the emission limits for EAS devices in the 1.705 - 30 MHz band since 1977, when it last granted Checkpoint's petition to permit the operation of EAS devices at the current emission limits. See Anti-pilferage Devices, 65 FCC2d at 804. As Checkpoint noted in its Petition, during the twenty years since 1977, the public demand for EAS equipment has surged, the Commission has demonstrated an increasing willingness to relax its technical restrictions on Part 15 devices, and

technological advancements have made it possible to reduce the risk of harmful interference to licensed radio systems and to permit the development of more effective EAS systems.[2] See Petition of Checkpoint, at 7. Thus, a revision of the Part 15 rules is long overdue and necessary to reflect changed circumstances.

III. THE PROPOSED EMISSION LIMITS WILL SERVE THE PUBLIC NEED FOR AN EFFECTIVE ANTI-THEFT SYSTEM

Contrary to Sensormatic's and the League's unsubstantiated allegations, the proposed emission limits are necessary to facilitate the deployment of low-cost, effective EAS systems that better serve the specific needs of retail stores and other commercial establishments. Checkpoint in its Petition stated that the proposed emission limits would allow Checkpoint to offer more advanced EAS systems that accommodate wider exit gates, permit the use of smaller tags, and reduce the potential for false alarms. See Petition of Checkpoint, at 7-9. In particular, Checkpoint asserted that wider exit gates would permit greater flexibility in the interior design of a store, allow for easier exit and entry, promote greater public safety by facilitating speedy exiting in emergency situations, and extend the full benefits of an effective EAS system to commercial establishments such as warehouses and distribution centers. Id. at 7-8. Checkpoint also noted that the use of smaller tags would permit the monitoring of smaller items, facilitate impulse purchases, reduce customer frustration with the limitations of larger tags, and enhance the convenience and effectiveness of the EAS system. Id. at 8.

[2] Contrary to Sensormatic's and the League's contention, it is undeniable that technological advancements in the past 20 years in fact have made it possible to reduce the risk of harmful interference to licensed radio systems. For example, technological advancements in equipment manufacturing have permitted the development of sophisticated RF receivers that are less prone to interference from Part 15 devices or other transmitters. Indeed, radio licensees increasingly rely on the use of such receivers as part of their licensed radio systems in order to minimize the risk of harmful interference from other radio operations.

Neither Sensormatic nor the League has offered any specific evidence indicating that the public demand for the type of advanced EAS system that Checkpoint envisions has been satisfied. Although Checkpoint's EAS systems currently are used in warehouses and distribution centers, those systems have limited application in such large centers as a result of the current technical restrictions imposed under Part 15 of the FCC's rules. Checkpoint's existing EAS systems can be used in warehouses and distribution centers only to monitor narrow portals through which individuals may enter and exit. However, because of the current emission limits, Checkpoint's existing EAS systems cannot accommodate wider portals through which forklifts and other vehicles enter and exit and through which expensive, bulk items are transported. Thus, Checkpoint's existing EAS systems cannot offer maximum protection against theft occurring at warehouses and distribution centers. Consequently, the proposed emission limits are necessary to enable warehouses and distribution centers to enjoy the full benefits of a low-cost, effective EAS system.

Furthermore, Sensormatic's and the League's opposition to the initiation of a rulemaking proceeding to relax the Part 15 emission limits is completely contrary to the Commission's well-established policy of promoting the "flexible use of the airwaves for commercial purposes." Statement of Reed E. Hundt, Chairman, Federal Communications Commission, on Spectrum Management Policy Before the Subcommittee on Telecommunications, Trade, and Consumer Protection, Committee on Commerce, U.S. House of Representatives, at 3 (Feb. 12, 1997). Indeed, the FCC Wireless Telecommunications Bureau has expressed an intent to "undertake a comprehensive rulemaking on unlicensed services to ensure adequate opportunities for the development of new unlicensed technologies." Keynote Address by Michele C. Farquhar, Chief of the Wireless Telecommunications Bureau, Before CTIA's Wireless '97 Conference, at 19 (Mar. 3, 1997). Moreover, as noted in Checkpoint's Petition, Chairman Hundt expressly has

acknowledged that "the present [conducted emission] limits have not been reviewed for far too long and may be unnecessarily inhibiting some high technology products and adding unnecessary costs to others." See The Hard Road Ahead – An Agenda for the FCC in 1997, R.E. Hundt, Chairman, FCC, 1996 FCC LEXIS 7111 (Dec. 26, 1996). Accordingly, the Chairman has proposed to initiate a proceeding to review the FCC's conducted emission standards. Id. Thus, in light of the Commission's previously stated willingness to take a fresh look at its Part 15 rules, Sensormatic's and the League's adamant refusal even to consider Checkpoint's proposed emission limits in a rulemaking proceeding seems highly unreasonable.

IV. THE PROPOSED EMISSION LIMITS WILL PROMOTE FAIR COMPETITION IN THE INTERNATIONAL MARKETS FOR EAS EQUIPMENT

In disputing that U.S. manufacturers of EAS equipment face severe competitive disadvantages in the international markets as a result of the current FCC emission limits, Sensormatic and the League completely ignore the fact that EAS devices operating below 30 MHz are not subject to any radiated emission limit at all in a number of foreign countries or are permitted to operate at much higher radiated emission levels in a number of other foreign countries. Specifically, Checkpoint in its Petition noted that EAS devices operating below 30 MHz in European countries such as Norway, Sweden, Finland, Italy, and Spain are not subject to any radiated emission limit at all. See Petition of Checkpoint, at 10. In addition, EAS devices operating below 30 MHz in Great Britain are permitted to operate at a maximum radiated emission level of 335 microvolts/meter at 30 meters, while similar EAS devices in the Netherlands are permitted to operate at an even higher maximum radiated emission level of 513 microvolts/meter at 30 meters. Id.

Furthermore, contrary to Sensormatic's and the League's suggestion, the European Telecommunications Standards Institute ("ETSI") neither has rejected its interim radiated

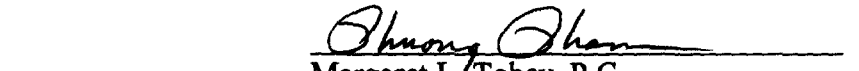
emission standard of 1 millivolt/meter at 30 meters nor has adopted a new standard that is significantly less than the current interim standard. Although a new proposed standard currently is under consideration by ETSI, there is no indication that such standard is likely to be adopted by ETSI. Thus, the current interim ETSI standard of 1 millivolt/meter at 30 meters continues to be the radiated emission limit recommended by ETSI.

In the face of higher radiated emission limits adopted in a number of foreign countries, Checkpoint and other U.S. manufacturers of EAS devices should be afforded regulatory flexibility to compete fairly and effectively with foreign manufacturers. Accordingly, because the proposed emission limits are comparable to international standards, adoption of such limits will advance the Commission's international harmonization policy.

V. CONCLUSION

Based on the foregoing, Checkpoint urges the Commission to dismiss or deny the objections raised by Sensormatic and the League and to immediately commence a rulemaking proceeding to amend Part 15 of the FCC's rules to provide increased technical flexibility in the operation of Checkpoint's EAS equipment.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I, Elizabeth O. Dickerson, an employee of Akin, Gump, Strauss, Hauer & Feld, L.L.P., certify that copies of the foregoing **CONSOLIDATED REPLY** were sent by Hand Delivery or U.S. Mail on this 1ST day of July 1997, to the following parties:

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